What is claimed is:

- 1. A porous member comprising a metallic porous body having a three-dimensional network structure and having the average pore diameter of 50  $\mu$  m to 1 mm and the porosity of 80% or over, and a metal substrate, said metallic porous body and said metal substrate being joined together by solid phase diffusing treatment so as to form an integral structure.
- 2. A porous member as claimed in claim 1 wherein said metallic porous body and/or said metal substrate is formed of a material which comprises an Fe-Cr or Ni-Cr alloy containing at least one element selected from the group consisting of Ni, Mo, Cu, B, Al, Si, Ti and C.
- 3. A porous member as claimed in claim 1 or 2 wherein the electrical resistance at the joint surface between said metallic porous body and said metal substrate is not more than 4.5 m $\Omega$  .cm<sup>2</sup>.
- 4. A porous member as claimed in claim 1 or 2 wherein the oxygen concentration at the joint surface between skeleton portion of said metallic porous body and said metal substrate is not more than 10 wt%.

- 5. A method of manufacturing a porous member, comprising the steps of laminating a metallic porous body and a metal substrate, and subjecting them to heat treatment at a temperature of not less than 900 °C and not more than 1300 °C under pressurized state in a reducing atmosphere to join said metallic porous body and said metal substrate together by solid phase diffusion at the interface.
- 6. An electrochemical device wherein the porous members as claimed in any of claims 1-4 are arranged on both sides of a proton exchange membrane and a catalyst electrode layer to function as a gas diffusing electrode and a separator.